

IN THE CLAIMS:

Please amend the claims as indicated in the complete listing of pending claims listed below.

1. (Canceled)
2. (Currently Amended) A data structure stored on a computer readable storage medium, the data structure comprising:  
a table for virtual method dispatch and type identification, wherein the table includes  
a plurality of pointers, wherein the plurality of pointers point to a plurality of  
classes and wherein the plurality of classes include at least one unified type  
hierarchy;  
~~The data structure of claim 1~~ wherein the unified type hierarchy ~~includes:~~ includes  
a first name from a first programming language, wherein the first name identifies an  
assigned object in the first programming language;  
a second name from a second programming language, wherein the second name  
identifies the assigned object in the second programming language; and  
a pointer to an implementation of the assigned object.
3. (Original) The data structure of claim 2 wherein if the assigned object is not identified in the first programming language, then the first function name is a null.
4. (Currently Amended) The data structure of ~~claim 1~~ claim 2 wherein the unified type hierarchy includes:

a data structure that is recognizable by a first programming language and a second programming language.

5. (Currently Amended) The data structure of ~~claim 1~~claim 2 wherein the data structure is a data structure for use in two or more hierarchical programming languages.
6. (Currently Amended) The data structure of ~~claim 1~~claim 2 wherein the data structure is a data structure for use in two or more object-oriented programming languages.
7. (Original) The data structure of claim 6 wherein the two or more object-oriented programming languages include at least two of a group consisting of:  
Java, C# (C Sharp), C++, Smalltalk, and Eiffel.
8. (Currently Amended) The data structure of ~~claim 1~~claim 2 further comprising:  
a root identifying each one of a plurality of programming languages wherein the data structure is recognizable in each one of the plurality of programming languages.
9. (Canceled)
10. (Currently Amended) The method of ~~claim 9~~claim 19 wherein the plurality of programming languages include at least two of a group consisting of Java, C# (C Sharp), C++, Smalltalk, and Eiffel.
11. (Currently Amended) A computer system comprising:

a processor;  
 an input/output system coupled to the processor via a bus system;  
 a memory system coupled to the bus, wherein the memory system includes processor  
 executable instructions that when executed configure the processor ~~to~~ to  
 receive a plurality of data structures, wherein the each one of the plurality of  
 data structures are from a different one of the plurality of  
 programming languages;  
 compare the implementation of each one of the plurality of data structures;  
 and  
 identify at least two of the plurality of data structures that have identical  
 implementations; and  
eliminate one of the identical implementations to create a unified data  
structure recognizable by the plurality of programming languages for a  
table for virtual method dispatch and type identification.

12. (Original) The system of claim 11, further comprising a network adapter coupled to the bus system and wherein the network adapter is coupled to a computer network.
13. (Original) The system of claim 11 wherein the plurality of programming languages include at least two of a group consisting of Java, C# (C Sharp), C++, Smalltalk, and Eiffel.
14. (Currently Amended) A method implemented on a data processing system, the  
method of unifying data structures comprising:

receiving a plurality of data structures, wherein the each one of the plurality of data  
 structures are from a different one of a plurality of programming languages;  
 comparing the implementation of each one of the plurality of data structures;  
 identifying at least two of the plurality of data structures that have identical  
 implementations; and  
 creating a unified data structure wherein the unified data structure ~~includes:~~ includes  
a first name from a first programming language, wherein the first name  
identifies one of the identified data structures in the first programming  
language;  
a second name from a second programming language, wherein the second  
name identifies one of the identified data structures in the second  
programming language; and  
a pointer to an implementation of the identified data structures.  
~~a single implementation of the identified at least two data structures; and~~  
~~a plurality of names of the identified at least two data structures.~~

15. (Original) The method of claim 14 wherein the plurality of names of the identified at least two data structures includes names that correspond to the respective one of the plurality of programming languages for each of the at least two data structures.
16. (Currently Amended) A computer system comprising:
  - a processor;
  - an input/output system coupled to the processor via a bus system;
  - a memory system coupled to the bus, wherein the memory system includes processor executable instructions that when executed configure the processor ~~to:~~ to

receive a plurality of data structures, wherein the each one of the plurality of data structures are from a different one of a plurality of programming languages;

compare the implementation of each one of the plurality of data structures;

identify at least two of the plurality of data structures that have identical implementations; and

create a unified data structure wherein the unified data structure ~~includes~~:

includes

a first name from a first programming language, wherein the first name identifies one of the identified data structures in the first programming language;

a second name from a second programming language, wherein the second name identifies one of the identified data structures in the second programming language; and

a pointer to an implementation of the identified data structures.

~~a single implementation of the identified at least two data structures;~~

~~and~~

~~a plurality of names of the identified at least two data structures.~~

17. (Original) The system of claim 16 wherein the plurality of programming languages include at least two of a group consisting of Java, C# (C Sharp), C++, Smalltalk, and Eiffel.

18. (Original) The system of claim 16 wherein the plurality of names of the identified at least two data structures includes names that correspond to the respective one of the plurality of programming languages for each of the at least two data structures.
19. (Currently Amended) A method implemented on a data processing system, the method ~~The method of claim 9, further comprising:~~  
receiving a plurality of data structures, wherein the each one of the plurality of data structures are from a different one of a plurality of programming languages;  
comparing the implementation of each one of the plurality of data structures;  
identifying at least two of the plurality of data structures that have identical implementations; and  
eliminating one of the identical implementations to create a unified data structure recognizable by the plurality of programming languages for a table for virtual method dispatch and type identification.
20. (Currently Amended) The system of claim 11, wherein the memory system further includes processor executable instructions that when executed configure the processor to:  
create ~~a unified~~ the unified data structure to contain names of the at least two of the plurality of data structures for the corresponding ones of the plurality of programming languages.